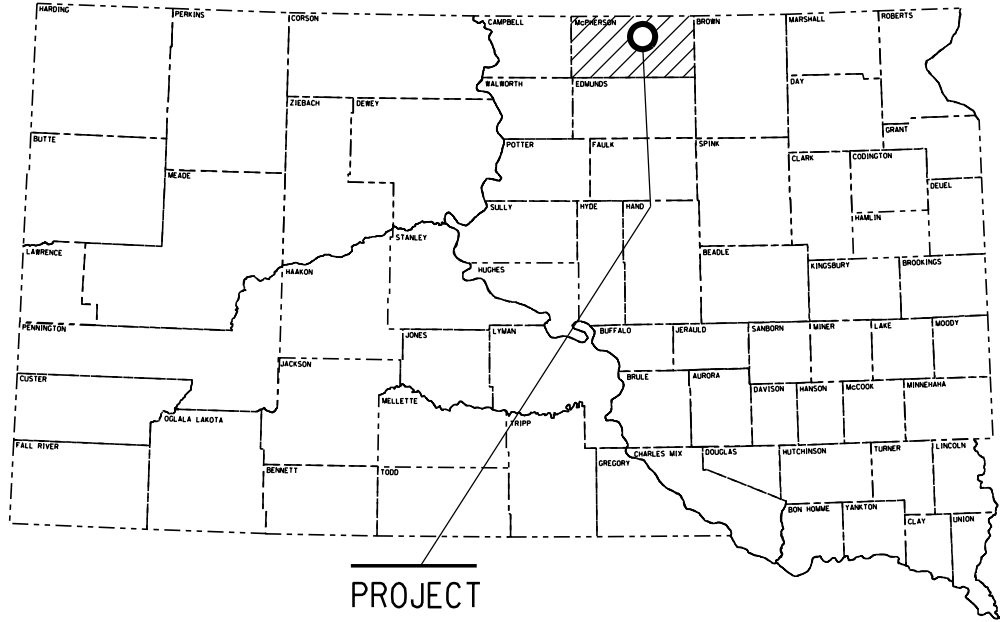


PLOT SCALE - 1:779.19

PLOTTED FROM - TRABINT01

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	410A384	1	7
Plotting Date: 02/07/2018			



STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

PROJECT 410A384
Leola Maintenance Yard
McPherson County

Yard resurfacing, and concrete
valley gutter replacement

PCN 151Q

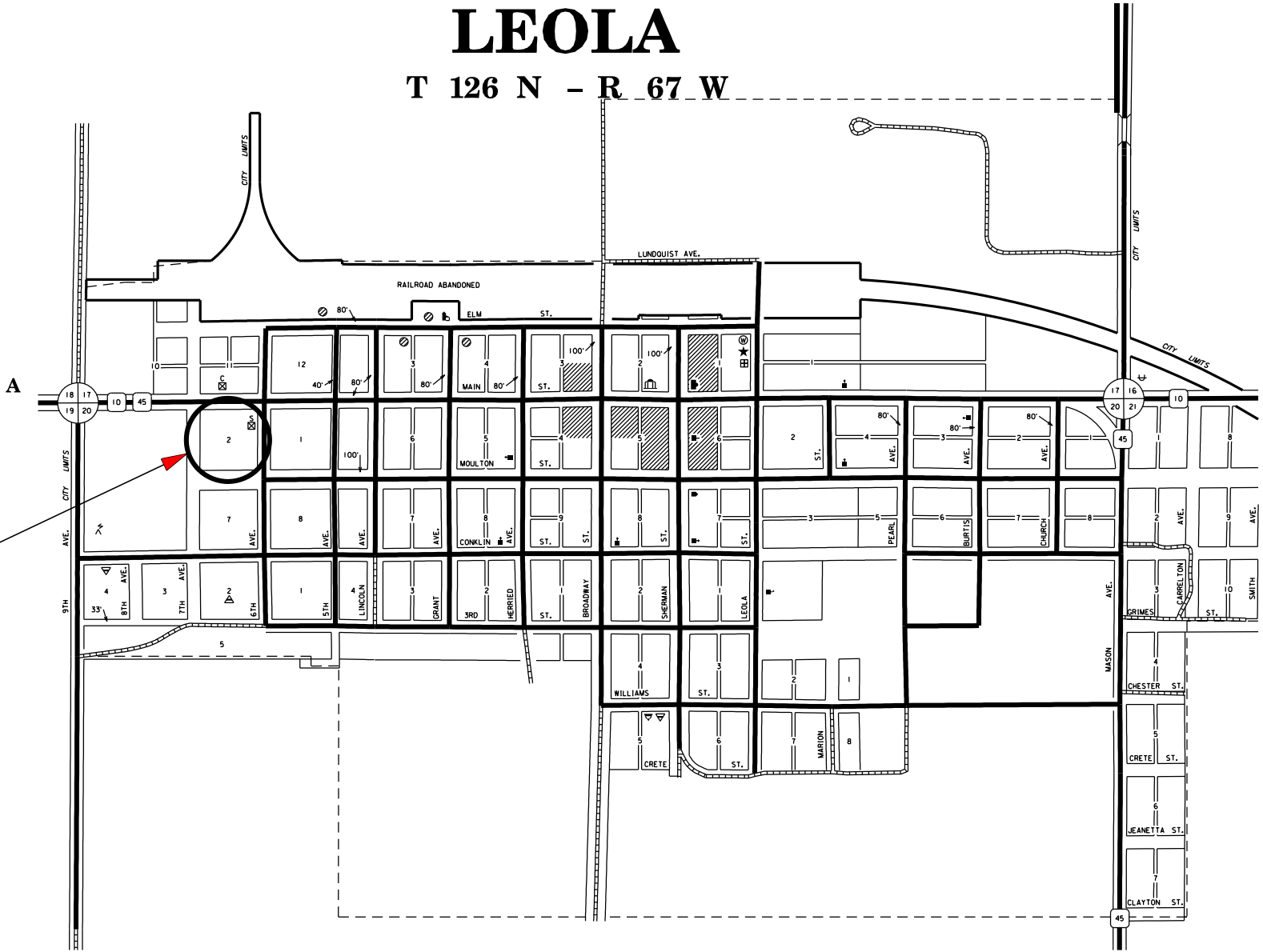
INDEX OF SHEETS

- Sheet No. 1: Title Page and Layout Map
Sheet No. 2: Estimate of Quantities and Environmental Commitments
Sheet No. 3: Plan Notes
Sheet No. 4-5: Detail Drawings
Sheet No. 6-7: Standard Plate

CITY MAP
LEOLA

T 126 N - R 67 W

Work Area



STORM WATER PERMIT
(none required)

PLOT NAME - 1

FILE - ... \TITLE SHEET.DGN

PLOT SCALE - 1:779.19

PLOTTED FROM - TRABINT01

PLOT NAME - 2

FILE - ... \US 12-TC.DGN

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
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ESTIMATE OF QUANTIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
110E1100	Remove Concrete Pavement	222.0	SqYd
110E1693	Remove Erosion Control Wattle	25	Ft
120E0100	Unclassified Excavation, Digouts	10	CuYd
260E1010	Base Course	18.9	Ton
320E1200	Asphalt Concrete Composite	564.7	Ton
332E0010	Cold Milling Asphalt Concrete	4,730	SqYd
451E6080	Adjust Water Valve Box	3	Each
650E6280	8" Concrete Valley Gutter	222.0	SqYd
734E0154	12" Diameter Erosion Control Wattle	25	Ft

SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2015 Edition and Required Provisions, Supplemental Specifications, and Special Provisions as included in the Proposal.

ENVIRONMENTAL COMMITMENTS

An Environmental Commitment is a measure that SDDOT commits to implement in order to avoid, minimize, and/or mitigate a real or potential environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency mentioned below with permitting authority can influence a project if perceived environmental impacts have not been adequately addressed. Unless otherwise designated, the Contractor’s primary contact regarding matters associated with these commitments will be the Project Engineer. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office. The environmental commitments associated with this project are as follows:

COMMITMENT E: STORM WATER

Construction activities constitute less than 1 acre of disturbance.

Action Taken/Required:

At a minimum and regardless of project size, appropriate erosion and sediment control measures must be installed to control the discharge of pollutants from the construction site.

COMMITMENT H: WASTE DISPOSAL SITE

The Contractor shall furnish a site(s) for the disposal of construction and/or demolition debris generated by this project.

Action Taken/Required:

Construction and/or demolition debris may not be disposed of within the Public ROW.

The waste disposal site(s) shall be managed and reclaimed in accordance with the following from the General Permit for Construction/Demolition Debris Disposal Under the South Dakota Waste Management Program issued by the Department of Environment and Natural Resources.

The waste disposal site(s) shall not be located in a wetland, within 200 feet of surface water, or in an area that adversely affects wildlife, recreation, aesthetic value of an area, or any threatened or endangered species, as approved by the Project Engineer.

If the waste disposal site(s) is located such that it is within view of any ROW, the following additional requirements shall apply:

- Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials shall be buried in a trench completely separate from wood debris. The final cover over the construction and/or demolition debris shall consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the Public ROW shall be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor shall control the access to waste disposal sites not within the Public ROW through the use of fences, gates, and placement of a sign or signs at the entrance to the site stating “No Dumping Allowed”.
- Concrete and asphalt concrete debris may be stockpiled within view of the ROW for a period of time not to exceed the duration of the project. Prior to project completion, the waste shall be removed from view of the ROW or buried and the waste disposal site reclaimed as noted above.

The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06.

Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

All costs associated with furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates, and signs), and reclamation of the waste disposal site(s) shall be incidental to the various contract items.

COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historical Preservation Office (SHPO or THPO) for all work included within the project limits and all department designated sources and designated option material sources, stockpile sites, storage areas, and waste sites provided within the plans.

Action Taken/Required:

All earth disturbing activities not designated within the plans require review of cultural resources impacts. This work includes, but is not limited to: Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas.

The Contractor shall arrange and pay for a cultural resource survey and/or records search. The Contractor has the option to contact the state Archaeological Research Center (ARC) at 605-394-1936 or another qualified archaeologist, to obtain either a records search or a cultural resources survey. A record search might be sufficient for review; however, a cultural resources survey may need to be conducted by a qualified archaeologist.

The Contractor shall provide ARC with the following: a topographical map or aerial view on which the site is clearly outlined, site dimensions, project number, and PCN. If applicable, provide evidence that the site has been previously disturbed by farming, mining, or construction activities with a landowner statement that artifacts have not been found on the site.

The Contractor shall submit the records search or cultural resources survey report and if the location of the site is within the current geographical or historic boundaries of any South Dakota reservation to SDDOT Environmental Engineer, 700 East Broadway Avenue, Pierre, SD 57501-2586 (605-773-3180). SDDOT will submit the information to the appropriate SHPO/THPO. Allow **30 Days** from the date this information is submitted to the Environmental Engineer for SHPO/THPO review.

If evidence for cultural resources is uncovered during project construction activities, then such activities shall cease and the Project Engineer shall be immediately notified. The Project Engineer will contact the SDDOT Environmental Engineer in order to determine an appropriate course of action.

SHPO/THPO review does not relieve the Contractor of the responsibility for obtaining any additional permits and clearances for Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas that affect wetlands, threatened and endangered species, or waterways. The Contractor shall provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

PLOT SCALE - 1:779.19

PLOTTED FROM - TRABINT01

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	410A384	3	7
Plotting Date: 02/07/2018			

SURFACING THICKNESS DIMENSIONS

Plans tonnage will be applied even though the thickness may vary from that shown on the plans.

At those locations where material must be placed to achieve a required elevation, plans tonnage may be varied to achieve the required elevation.

SEQUENCE OF OPERATIONS

1. Remove and replace valley gutter: The Contractor shall remove and replace the concrete valley gutter prior to milling operations. The Contractor shall place the new valley gutter within 7 calendar days after removing the in place valley gutter. The concrete must reach design strength prior to any milling operations.
2. Mill areas designated on the plans: Milling cannot start until June 25 unless preapproved by the Engineer.
3. Pave areas designated on the plans: Paving must begin within 21 calendar days after milling operations have been completed.
4. Flush Seal all newly paved areas: Flush seal must be completed with 10 working days of completion of the paving.

COORDINATION OF WORK

An underground tank replacement project has been scheduled within the limits of this project. Work cannot begin on the resurfacing project until all work has been completed on the tank replacement project and all concrete has reached design strength. The completion date for the tank replacement project is June 8, 2018. The Contractor may contact the Aberdeen Area Office to assist with coordination 605-626-7885.

TRAFFIC CONTROL

The Contractor shall coordinate with the DOT maintenance personnel to provide access to the facilities for day to day operations.

The contractor will be responsible to provide and install any traffic control devices necessary to keep the public from entering the work zone. Payment for supplying and installing any traffic control devices will be incidental to the various contract items.

The maintenance yard shall only be accessed from SD Highway 10. Any damage to city streets as a result of indiscriminate driving by the Contractor shall be repaired by the Contractor to the satisfaction of the Engineer, at no cost to the State.

Indiscriminate driving and parking of vehicles within the right-of-way will not be permitted. Any damage to the vegetation, surfacing, embankment, delineators and existing signs resulting from such indiscriminate use shall be repaired and/or restored by the Contractor to the satisfaction of the Engineer, at no cost to the State.

Work activities during non-daylight hours are subject to prior approval.

EXCAVATION OF UNSTABLE MATERIAL

Included in the Estimate of Quantities are 10 Cubic Yards of Unclassified Excavation, Digouts for the necessary removal of unstable material.

Backfill shall be Base Course paid for at the contract unit price per ton.

BASE COURSE

Included in the Estimate of Quantities are 18.9 tons of Base Course for backfill of Unclassified Excavation, Digouts.

WATER FOR COMPACTION OF GRANULAR MATERIALS

Cost of water for compaction of the granular material shall be incidental to the contract unit price for the various contract items. Six percent, plus or minus, moisture will be required at the time of compaction unless otherwise directed by the Engineer.

COLD MILLING ASPHALT CONCRETE

The cold milled material obtained from the project shall become the property of the Contractor for their disposal.

The placement of asphalt concrete shall begin within 21 calendar days after completion of cold milling of asphalt concrete.

Enough material shall be milled out to allow the Contractor to place 2" of Asphalt Concrete Composite in all areas designated on the plan sheets.

Cold milling is estimated to produce 549 tons of material.

FLUSH SEAL

Application of flush seal shall be completed within 10 working days following completion of the asphalt concrete surfacing.

For each working day that the flush seal remains uncompleted after the 10 working day limitation, the Contractor will be assessed liquidated damages at the rate of \$250.00 per day.

The liquidated damages shall apply up to the expiration of the contract time requirement in which the flush seal is required to be completed, including any formally approved time extensions. Following the expiration of the contract time requirement in which the flush seal is required to be completed, including any formally approved time extensions, liquidated damages will be assessed in accordance with Section 8.8 of the specifications.

Tack or flush seal oil applied to concrete or buildings shall be removed to the satisfaction of the Engineer at no cost to the State.

ASPHALT CONCRETE COMPOSITE

The asphalt binder used in the mixture shall be a PG 64-28, PG 58-34 or PG 64-34 Asphalt Binder.

All other requirements in the specifications for Asphalt Concrete Composite shall apply.

It can be anticipated that hand work will be required to shape the asphalt concrete near buildings and other obstructions.

WATER VALVE ADJUSTMENT

Included in the Estimate of Quantities are 3 Adjust Water Valve Box. The Contractor shall adjust the height of the Water Valve Box to be flush with the newly placed asphalt concrete. Prior to bidding the project the Contractor shall inspect the water valve boxes to determine the extent of the work needed and determine if any additional materials will be needed. All labor and materials needed to adjust the water valve boxes shall be incidental to the contract unit price for ADJUST WATER VALVE BOX. Any additional materials needed to adjust the water valve boxes shall be approved by the Engineer prior to use.

8" VALLEY GUTTER REMOVAL

The Contractor shall remove the in place valley gutter as designated on the plan sheets. The in place valley gutter is 200.6' long and 10' wide and 8" thick. It is assumed to contain reinforcing steel. Upon removal the concrete shall become property of the Contractor for disposal. Any damage to the adjacent concrete slab during removal shall be repaired by the Contractor at no expense to the state and to the satisfaction of the Engineer.

The Contractor shall remove a minimum of 1 foot of asphalt concrete adjacent to the valley gutter for form placement. Payment for this work shall be incidental to the contract unit bid price for Remove Concrete Pavement. The asphalt shall be saw cut prior to removal. DOT forces will backfill the removal areas where the formwork was located.

8" VALLEY GUTTER

The new valley gutter shall be installed at the same location and elevation as the in place valley gutter. The valley gutter shall be built in accordance with standard plate 650.40. It will be the responsibility of the Contractor to record the elevation of the in place valley gutter prior to removal. The specified width is 10'. The slope towards the center of the valley gutter shall be1%. The coarse aggregate used in the M6 concrete shall be crushed ledge rock.

EROSION CONTROL WATTLE

Erosion control wattles for restraining the flow of runoff and sediment shall be installed at locations determined by the Engineer during construction. Refer to Standard Plate 734.06 for details.

The Contractor shall provide certification that the erosion control wattles do not contain noxious weed seeds.

The erosion control wattle provided shall be from the approved product list. The approved product list for erosion control wattle may be viewed at the following internet site:

<http://sddot.com/business/certification/products/Default.aspx>

PLOT NAME - 2

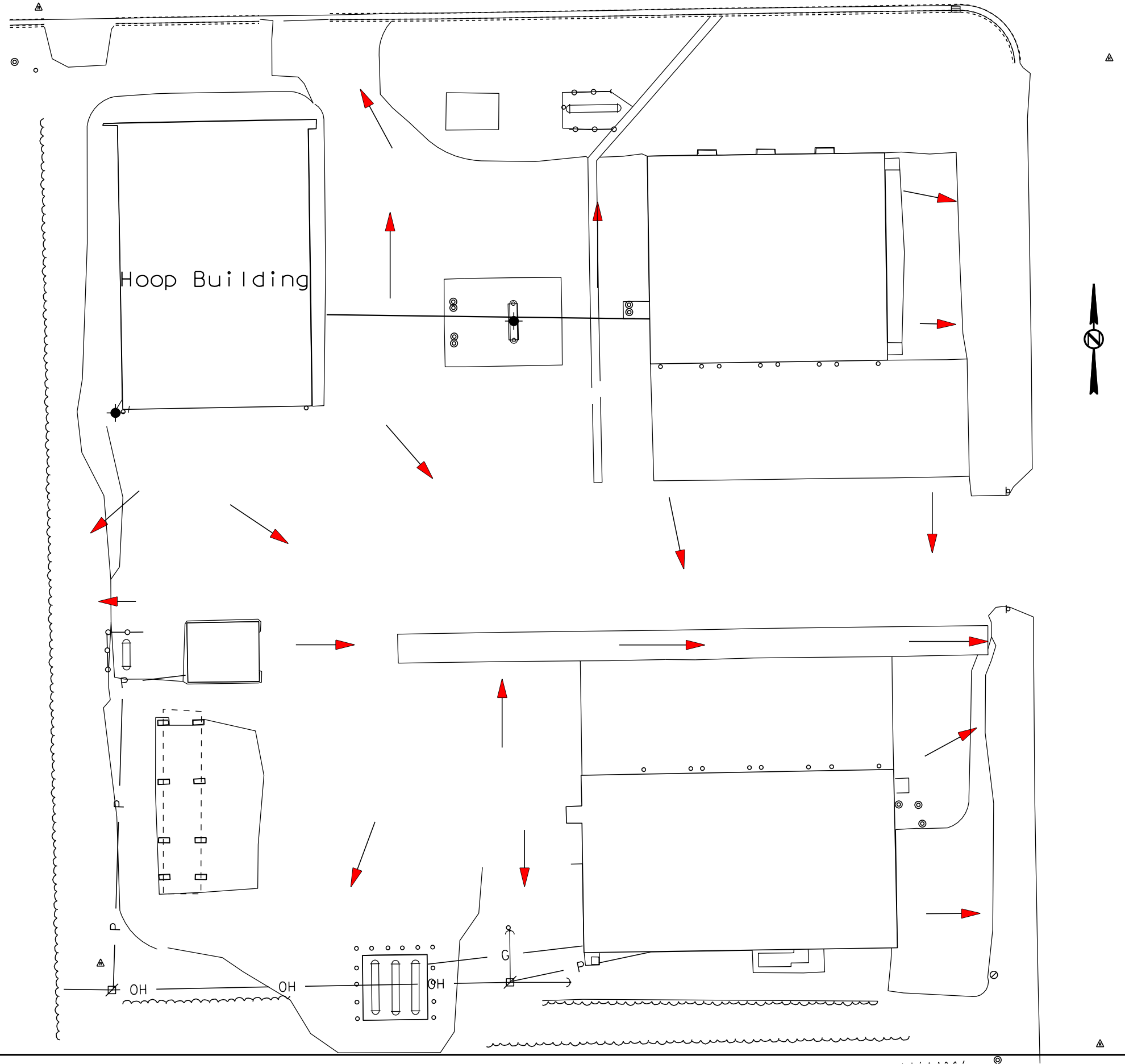
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Drainage Layout

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	410A384	5	7
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-The Contractor shall maintain positive drainage in all locations to prevent ponding.

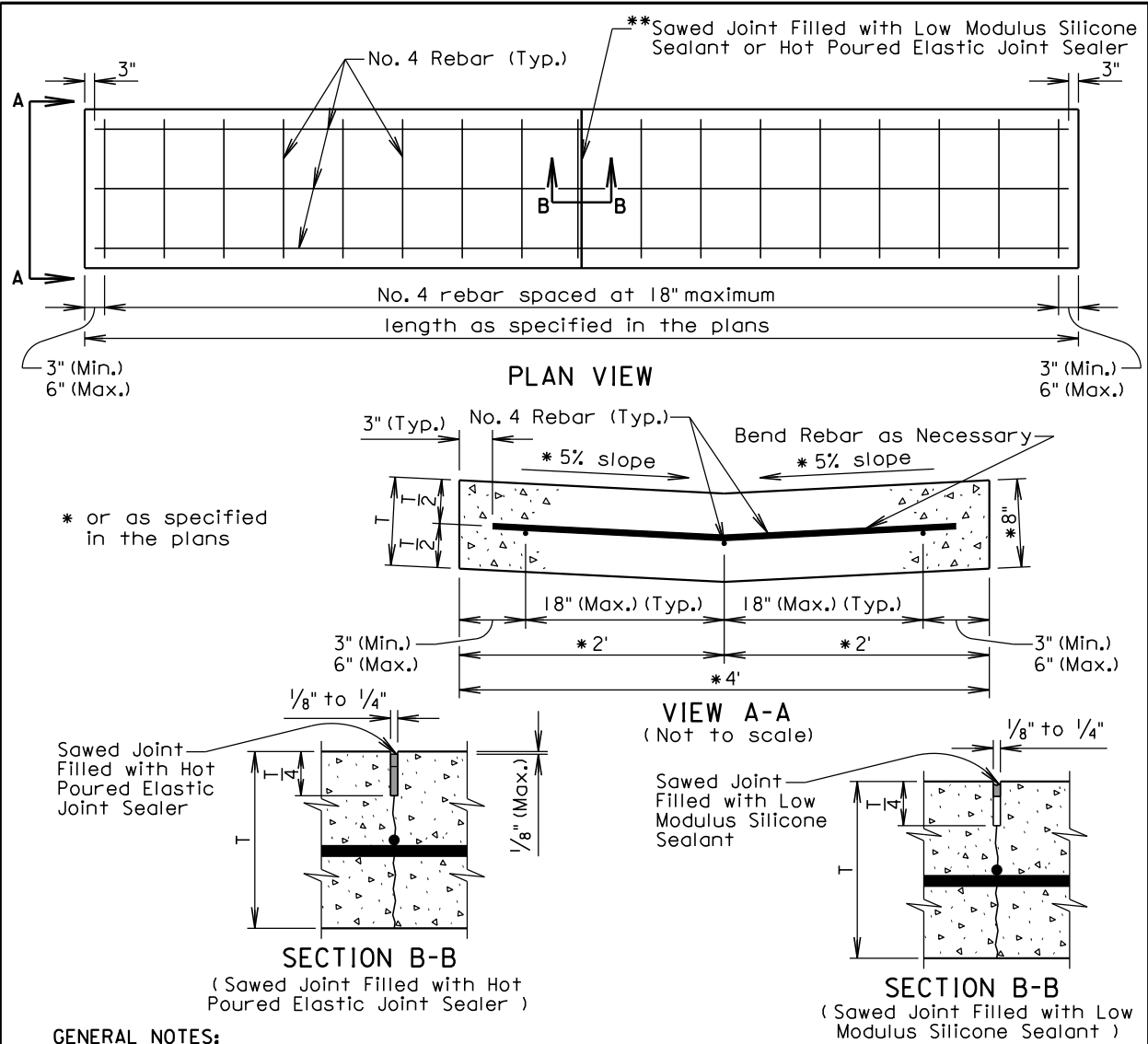
-In the area south of the hoop building it may be necessary to taper the milling, and or not mill at all to develop drainage away from the building opening.



PLOT SCALE - 1:779.19

PLOTTED FROM - TRABINT01

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	410A384	6	7
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Published Date: 4th Qtr. 2017

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VALLEY GUTTER

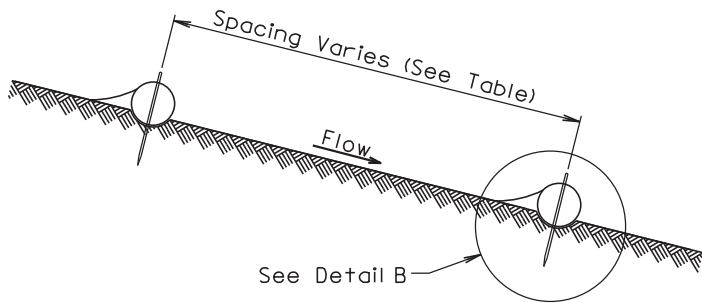
PLATE NUMBER
650.40

Sheet 1 of 1

PLOT NAME - 2

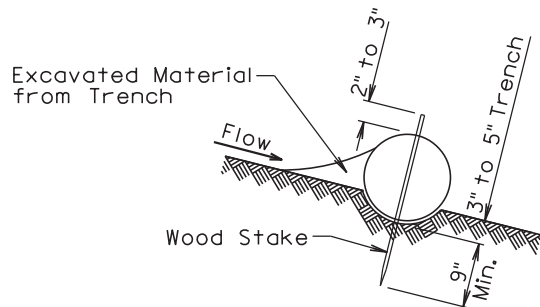
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STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	410A384	7	7
Plotting Date: 02/07/2018			

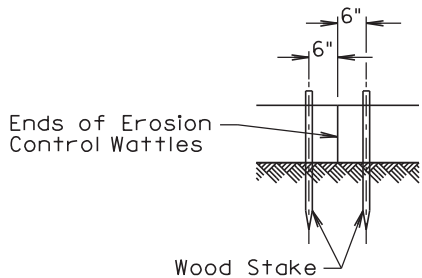


CUT OR FILL SLOPE INSTALLATION	
Slope	Spacing (Ft)
1:1	10
2:1	20
3:1	30
4:1	40

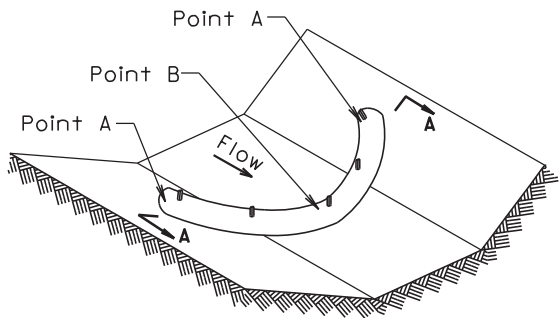
ELEVATION VIEW
CUT OR FILL SLOPE INSTALLATION



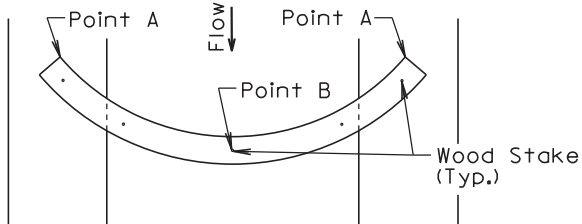
DETAIL B
(TYPICAL OF ALL INSTALLATIONS)



DETAIL C

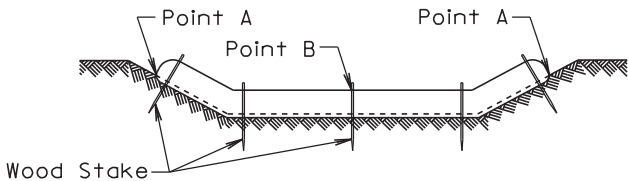


ISOMETRIC VIEW
DITCH INSTALLATION



PLAN VIEW
DITCH INSTALLATION

DITCH INSTALLATION	
Grade	Spacing (Ft)
2%	150
3%	100
4%	75
5%	50



SECTION A-A

December 23, 2004

Published Date: 1st Qtr. 2018

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EROSION CONTROL WATTLE

PLATE NUMBER
734.06

Sheet 1 of 2

GENERAL NOTES:

At cut or fill slope installations, wattles shall be installed along the contour and perpendicular to the water flow.

At ditch installations, point A must be higher than point B to ensure that water flows over the wattle and not around the ends.

The Contractor shall dig a 3" to 5" trench, install the wattle tightly in the trench so that daylight can not be seen under the wattle, and then compact the soil excavated from the trench against the wattle on the uphill side. See Detail B.

The stakes shall be 1"x2" or 2"x2" wood stakes, however, other types of stakes such as rebar may be used only if approved by the Engineer. The stakes shall be placed 6" from the ends of the wattles and the spacing of the stakes along the wattles shall be 3' to 4'.

Where installing running lengths of wattles, the Contractor shall butt the second wattle tightly against the first and shall not overlap the ends. See Detail C.

The Contractor and Engineer shall inspect the erosion control wattles once every week and within 24 hours after every rainfall event greater than 1/2". The Contractor shall remove, dispose, or reshape the accumulated sediment when necessary as determined by the Engineer.

Sediment removal, disposal, or necessary shaping shall be as directed by the Engineer. All costs for removing accumulated sediment, disposal of sediment, and necessary shaping shall be incidental to the contract unit price per cubic yard for "Remove Sediment".

All costs for furnishing and installing the erosion control wattles including labor, equipment, and materials shall be incidental to the contract unit price per foot for the corresponding erosion control wattle bid item.

All costs for removing the erosion control wattle from the project including labor, equipment, and materials shall be incidental to the contract unit price per foot for "Remove Erosion Control Wattle".

December 23, 2004

Published Date: 1st Qtr. 2018

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EROSION CONTROL WATTLE

PLATE NUMBER
734.06

Sheet 2 of 2